

NOTES ON SOME AUSTRALIAN FOSSILS.

BY FELIX RATTE, M.E.

I.—*SALISBURIA PALMATA*, *emend.* from *JEANPAULIA* OF *BAIERA*

PALMATA, Ratte.

Jeanpaulia or *Baiera palmata*, Proc. Linn. Soc. N.S.W., 2nd ser. Vol. I. p. 1078, pl. XVII.

When I described the above I had been able to consult only the first two volumes of de Saporta's "Terrain Jurassique" in "Paléontologie Française." Tome III. of this work published in 1876-1879, deals with the Coniferous Plants. From the evidence here given, *Jeanpaulia* is no more to be considered as a fern. A great number of Jurassic species (1) have been described by M. Heer, and placed in the genus *Salisburia*, being, from their mode of fructification, generically identical with the actual *Ginkgo biloba*, Lin. (*Salisburia adiantifolia*, Sm.). Therefore this group of plants is dealt with by de Saporta under the heading

Trib. I. SALISBURIAE, l.c., p. 251.

This author says, p. 253. "ainsi que le remarque avec raison Mr. Heer, le type de ces *Salisburia* jurassiques s'écarte très-peu, sauf par la dimension plus petite et la forme plus ovoïde des graines du *Salisburia* vivant, tandis que les espèces wæaldiennes et crétacées (*Baiera*), s'en écartent bien davantage, circonstance qui explique pourquoi les affinités légitimes de ces dernières ont été si longtemps méconnues"

The figure given in Tome III. of *Baiera* (*Jeanpaulia*) *Münsteriana*, Presl., the type of the genus *Jeanpaulia*, and which is very

(1) From Cape Boheman (*Eisfiord*,—*Isfjord*.)

abundant in the schistose sandstone of the Rhætic near Bayreuth, are considerably more nearly related to our *Salisburia palmata*, than those formerly given by the same author in Tome I., and by Prof. Schimper in "Paléontologie Végétale." Especially the figures represented in plates CLV., CLVI., CLVII., (1) will compare favourably with it.

The author, page 256, says: "Malgré quelques traits spéciaux les *Jeanpaulia* les mieux caractérisés: *Jeanpaulia Münsteriana*, Presl. (*Baiera dichotoma*, Fr. Br.), *J. longifolia*, Sap. (*Dicropteris longifolia*, Pom.), etc., sont trop conformes, par leur consistance, leur nervation, et le mode de partition de leurs feuilles aux *Salisburia* jurassiques et créacés naguère désignés sous le nom de *Baiera*, pour ne pas leur être reliés à un titre quelconque. Les seules différences sont les suivantes: les *Baiera*, du sous-type des *Jeanpaulia* ont des feuilles en coin (wedge) allongé, insensiblement atténuées à la base sur un pétiole plus court et moins distinct; les segments sont moins divergents, plus allongés et plus étroits, en lanières (straps) une ou plusieurs fois divisées par dichotomies successives, etc.," . . . And at p. 262: "Les genres *Baiera* et *Salisburia* ont prédominé tour à tour dans le terrain jurassique; le second à partir de l'oolithe; le premier dans le Lias, et surtout dans le Rhétien, où les vestiges des *Salisburia* proprement dits sont rares ou tout à fait incertains."

The two Permian genera *Ginkgophyllum* and *Trichopitys*, (Saporta, Comptes Rendus, t. LXXX. p. 1017, 1875,) represented pl. CLII. (1) are the prototypical *Salisburiaceæ* according to this author.

It will be remembered that our *S. palmata* is from the Hawkesbury-Wianamatta formation, now settled as Triassic.

Further discoveries will be anxiously expected which will allow the flowers of this beautiful plant to be known. In the meantime it seems evident that *Jeanpaulia bidens* of T. Woods, from Burnett River, referred by this author to the Rhætic or Lower Lias, will have to be considered as a plant of the same group as *Salisburia*.

(1) Saporta *l.c.* t. I.

II.—ON THE MUSCULAR IMPRESSION OF THE GENUS NOTOMYA

(MÆONIA.)

(Plate III.)

Notomya (Mæonia) elongata, Dana; Etheridge, Catal. Austr. Foss. p. 73; de Koninck, Foss. Pal. Nouv. Galles &c. (1877), Pt. 3, pl. 20, fig. 6, &c.

The specimen of this fossil represented by de Koninck is from Illawarra, and those in the Museum from the same district, have been collected at Jamberoo. There, all the carboniferous marine fossils are in sandstone, and it is very rare to find their tests.

However, de Koninck's figure does not show the remarkable peculiarities of the casts of these shells. The principal of these peculiarities is the fringed outline of the anterior muscular impression which, according to Dana (Amer. Jour. Science, (1847), IV. p. 158) is a character of his original genus, as well as another small impression similar to that of *Astarte*.

I give the figure of a good internal cast in the Museum, but as in this the fringed outline is rather defaced, I give separately the figure of the impression from another still better specimen.